

### **EXAMINER'S AMENDMENT**

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with David M. Longo (Reg. No. 53,235) on 3/9/11.

Claims 22, 24, 34, 40, and 42 are amended. Claim 33 have been cancelled and claim 43 is added. The claims in the application have been specifically amended as follows:

22. (Currently Amended) A method of tuning a scheduling process for assigning tasks to resources of a workforce management system, the scheduling process being arranged for calculating a work plan or work plan data on the basis of resources availability and tasks to be carried out by said resources and as a function of predetermined scheduling parameters, comprising the following steps:

acquiring scheduling parameters data, resources availability data and tasks data concerning tasks to be carried out;

selectively modifying at least a predetermined subset of said scheduling parameters data;

running the scheduling process on the basis of scheduling parameters, resources availability and task data, for each modified scheduling parameters data, to calculate respective work plans;

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acquiring target data including one or more targets which form the basis for the evaluation of work plans;

applying a score function to each of said calculated work plans for calculating respective score values representative of the degree of achievement of said one or more targets by each calculated work plan; and

selecting the work plan to be used by said workforce management system as the work plan being attributed a score value complying with a predetermined degree of achievement of one or more targets,

wherein the score function is defined for calculating a respective value representative of the degree of achievement of multiple targets i, as a function of F of a plurality of score functions  $f_i$  related to respective targets specified in input, according to the mathematical relationship:

$$F = \begin{cases} 0, & \text{if at least a function } f_i = 0 \\ \sum_i k_i \cdot f_i, & \text{otherwise} \end{cases}$$

where the overall sum of  $k_i$  is equal to 1 and each  $k_i$  specifies a weight attributed to the respective target.

24. (Currently Amended) The method according to claim 22, wherein the score function is a function operating on a subset of work plan data, ~~[[and]]~~ the method further comprises the step of associating to the score function an absolute integer value belonging to a predetermined limited range of values, a first end of which ~~represents~~ representing a condition of maximum deviation from target and ~~[[the]]~~ a second end of which ~~represents~~ representing a condition of target substantially achieved.

33. (Canceled)

34. (Currently Amended) ~~The method according to claim 22,~~ A method of tuning a scheduling process for assigning tasks to resources of a workforce management system, the scheduling process being arranged for calculating a work plan or work plan data on the basis of resources availability and tasks to be carried out by said resources and as a function of predetermined scheduling parameters, comprising the following steps:

acquiring scheduling parameters data, resources availability data and tasks data concerning tasks to be carried out;

selectively modifying at least a predetermined subset of said scheduling parameters data;

running the scheduling process on the basis of scheduling parameters, resources availability and task data, for each modified scheduling parameters data, to calculate respective work plans;

acquiring target data including one or more targets which form the basis for the evaluation of work plans;

applying a score function to each of said calculated work plans for calculating respective score values representative of the degree of achievement of said one or more targets by each calculated work plan; and

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selecting the work plan to be used by said workforce management system as the work plan being attributed a score value complying with a predetermined degree of achievement of one or more targets,

wherein ~~[[a]]~~ the score function is defined for calculating a respective value representative of the degree of achievement of multiple targets i with priorities, and at least of a target j with a score not under a predetermined threshold T, as a function F' of a plurality of score functions f<sub>i</sub> related to respective targets specified in input and said threshold, according to the mathematical relationship:

$$F' = \begin{cases} 0, & \text{if at least a function } f_i = 0, \text{ or } f_j < T \\ \sum_i k_i \cdot f_i, & \text{otherwise} \end{cases}$$

$$F' = \begin{cases} 0, & \text{if at least a function } f_i = 0, \text{ or } f_j < T \\ \sum_i k_i \cdot f_i, & \text{otherwise} \end{cases}$$

where the overall sum of k<sub>i</sub> is equal to 1 and each k<sub>i</sub> specifies ~~[[the]]~~ a weight attributed to the respective priority target.

40. (Currently Amended) A system for tuning a task scheduling process, comprising:  
at least one computer;

memory modules on said at least one computer for storing data concerning scheduling parameters, resources availability and tasks to be carried out;

a user-interface module including a parameter input unit for modifying data concerning said scheduling parameters, a target input unit for establishing one or more targets which form

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the basis for the evaluation of work plans, and a display for displaying the results of said evaluation of work plans; and

a processing module for calculating work plans from said data concerning scheduling parameters, resources availability and tasks; and

a score module associated with said processing module for assigning a score value to said calculated work plans according to a selected score function, which score value is related to the degree of achievement of said one or more targets,

wherein the score function is defined for calculating a respective value representative of the degree of achievement of multiple targets i, as a function of F of a plurality of score functions  $f_i$  related to respective targets specified in input, according to the mathematical relationship:

$$F = \begin{cases} 0, & \text{if at least a function } f_i = 0 \\ \sum_i k_i \cdot f_i, & \text{otherwise} \end{cases}$$


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where the overall sum of  $k_i$  is equal to 1 and each  $k_i$  specifies a weight attributed to the respective target.

42. (Currently Amended) A non-transitory computer readable storage medium encoded with a computer program product loadable into a memory of at least one computer and containing portions of software code for carrying out a method of tuning a task scheduling process according to any one of claims 22 to [[39]] 32 and 34-39.

43. (New) A system for tuning a task scheduling process, comprising:  
at least one computer;

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memory modules on said at least one computer for storing data concerning scheduling parameters, resources availability and tasks to be carried out;

a user-interface module including a parameter input unit for modifying data concerning said scheduling parameters, a target input unit for establishing one or more targets which form the basis for the evaluation of work plans, and a display for displaying the results of said evaluation of work plans; and

a processing module for calculating work plans from said data concerning scheduling parameters, resources availability and tasks; and

a score module associated with said processing module for assigning a score value to said calculated work plans according to a selected score function, which score value is related to the degree of achievement of said one or more targets

wherein the score function is defined for calculating a respective value representative of the degree of achievement of multiple targets  $i$  with priorities, and at least of a target  $j$  with a score not under a predetermined threshold  $T$ , as a function  $F'$  of a plurality of score functions  $f_i$  related to respective targets specified in input and said threshold, according to the mathematical relationship:

$$F' = \begin{cases} 0, & \text{if at least a function } f_i = 0, \text{ or } f_j < T \\ \sum_i k_i \cdot f_i, & \text{otherwise} \end{cases}$$

where the overall sum of  $k_i$  is equal to 1 and each  $k_i$  specifies a weight attributed to the respective priority target.

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### **Conclusion**

Any inquiry concerning this communication or earlier communications from the examiner should be directed to KENNETH TANG whose telephone number is (571)272-3772. The examiner can normally be reached on 9:00AM - 5:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Emerson Puente can be reached on (571) 272-3652. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Kenneth Tang/  
Primary Examiner, Art Unit 2196